Chapter 304

ITEM PROCESSING SERVICE CENTERS

Introduction   Item processing is the conversion of source documents, checks, and other transaction tickets to machine readable form, then processing and distributing this information in a manner that results in the ultimate settlement (payment or collection) through the Federal Reserve Bank (FRB) or another correspondent financial institution. Item processing services are performed by larger natural-person credit unions, corporate credit unions (corporates), credit union service organizations (CUSOs), leagues, banks, and national or regional check processing service centers.

Item processing services are and will continue to change. With the advent of Check 21, the increase in electronic funds transfer, the use of ACH and internet bill payment, the utilization of paper checks is declining. The FRB continues to consolidate its check processing units at a number of its facilities throughout the country. This restructuring will create additional opportunities as well as increased competitive pressures for corporates.

Share Draft Inclearing

Share draft inclearing is a common item processing service. This refers to the corporate's processing of member credit union share drafts. The following steps occur in this process:

1. A credit union member pays a vendor with a share draft, which the vendor deposits into its bank account.

2. The bank processes this deposit internally by encoding and sending the share draft to the FRB for credit.

3. The FRB processes the share draft, credits the local bank's account at the FRB and charges the credit union's payable account through the corporate's account at the FRB.

4. The FRB sends the corporate (by courier) the cleared member share draft.

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5. The corporate sorts and images the member share draft and posts the inclearing transaction from the FRB to the member share draft account.

6. Share draft exception reports run the next morning by the member credit union will identify any account with insufficient funds, closed or non-existent accounts, or other criteria that prevents the draft from being paid. Returns are initiated by the member credit union to the corporate.

7. The corporate physically pulls the item and sends it back to the FRB for return to the local bank and gives the member credit union immediate credit.

Deposit Transit

Deposit transit (collection) is another common item processing service performed by corporates. This occurs when a corporate receives and processes checks which have been deposited at a member credit union for credit to the individual member accounts. The basic process follows:

1. The member sends the day's check deposits (by courier) to the corporate.

2. The corporate processes, images, sorts, and sends the checks to the FRB for credit (the encoding may be performed by the credit union or corporate, depending on the arrangement).

3. The FRB receives the check deposits (in the form of a cash letter) and then processes the checks.

4. The account at the FRB payable through the corporate is credited. At the same time the accounts for the banks paying the deposited checks are charged for the payments and the checks are sent to those banks or their designated processor.

Direct Presentment Arrangements

Direct presentment arrangements occur when two or more financial institutions, in a defined geographical area, agree to directly present their checks (deposits and payments in the form of cash letters) to each other, bypassing the FRB. These arrangements, in some cases, may involve formation of a local clearing association, with its own

procedures and restrictions on joining the association. Direct presentment arrangements can exist for both deposits and share drafts.

Share Draft Clearing via Direct Presentment includes the following steps:

1. A vendor deposits the share draft at its financial institution.

2. The financial institution processes and sorts the checks which are encoded with the corporate's routing and transit number.

3. The checks and a cash letter are sent directly to the corporate for settlement the same day.

4. The corporate proofs the checks, which have been directly presented, to confirm the payment amount on the cash letter and posts the payment amounts to the member share draft clearing accounts.

5. The corporate then pays the local bank (by Fedline wire) for the member share draft deposits made at the bank.

Deposit Settlement via Direct Presentment includes the following steps:

1. The member credit union or participating bank sends the checks deposited that day to the corporate.

2. The corporate sorts the checks. Each participating local bank is sent a cash letter and a bundle of checks issued by that bank with a demand for payment.

3. The bank processes the checks and wires an amount to the corporate to settle payment for its cleared checks.

Item Processing Center Facilities

The most common equipment and related components of the item processing operation are:

1. encoding stations;
2. reader/sorter(s) (includes imaging process);
3. power encoders**;**
4. computer terminals for both the item processor controller and member credit union data systems;

5. reject/re-entry stations;
6. correspondence desks used for resolving and researching differences with members, other financial institutions, and the FRB;
7. check storage areas both on-site and off-site; and
8. microfilming equipment.

Facilities should be organized in a manner that results in an efficient, one-way workflow. The space allocated to item processing operations and related functions must be adequate to assure proper physical segregation of equipment and personnel. The following physical security controls are common:

1. controlled access, via card key or combination locks;
2. fire suppression systems;
3. water detection equipment below the floors;
4. hand-held fire extinguisher(s);
5. switches to activate an alarm when an electrical circuit is broken; and
6. sound and/or motion detection equipment.

In addition to physical controls over the item processing equipment, all negotiable instruments (checks, cash letters, deposits in transit, etc.) should be in a secure area from their initial receipt throughout processing, imaging or filming, storage and destruction.

Document Management and Data Backup

Properly stored and maintained microfilm imaging is essential for all item processing operations. Controls must be in place to safeguard the microfilm imaging stored on-site, and for maintaining at least one full copy off-site. Procedures must be in place to ensure all images are legible prior to placing it in storage. Processed data must be backed up daily. Adequate generations of backed-up data must be maintained both on- and off-site.

Written contracts must be in place documenting agreements for the satisfactory destruction of physical checks, cash letters and reconciliation support. Items should be shred on-site while witnessed by a staff member or transported in secured containers to a vendor location for shredding. Management must provide a sufficient record of the process documenting that the items are adequately destroyed.

Contingency Planning

Management must ensure that plans are in place to resume operations in a timely manner in the event of damage to the facilities and/or equipment. The item processing operation should be included in the corporate-wide contingency plan.

Management must:

1. establish legal agreements for the use of alternate sites and equipment;
2. develop procedures for all item processing operations under full disaster recovery situations; and
3. test fully item processing operations with alternate site equipment. The test must be realistic, comprehensive, and well- documented. Item processing functions must be fully restorable within hours of the time item processing operations are impaired.

Item processing contingency testing should employ sufficient volumes to ensure the processing function could be maintained until standard operations could be fully restored. If there is limited equipment at the back-up site, consideration should be given to temporarily obtaining available resources so comparable volumes can be tested, ensuring the adequacy of the backup function.

Transaction Volume and Trends

Significant investments in hardware, software, and human resources are needed to support item processing operations. High volume operations may require more than one reader/sorter. Backup equipment or backup capabilities are needed at alternate sites, or should be contracted with third parties.

Potential Losses

Human error, fraud, failure to remain competitive, operational disruption, or catastrophic damage to the facility and/or items in transit can cause losses in an item processing operation.

The examiner should review lawsuits, pending litigation, and write-offs. Excessive legal problems and losses stemming from the operation could indicate deficiencies in management, internal controls, and/or contractual agreements.

Policies and Procedures

Comprehensive policies and procedures are needed to manage the risks represented by an item processing operation. The board-level policy or board-directed procedures should address the following, at a minimum:

1. specific services offered;
2. fee structure;
3. periodic cost analysis;
4. market factors, including market penetration studies, assessment of direct competition, and changes in technology (image processing, branch capture, proof of deposit, etc.); and
5. charge-off policies.

The examiner should review workflow procedures which address operational functions in detail. These include but are not limited to:

1. departmental internal control structure;
2. operational deadlines and computer run schedules;
3. accounting procedures and requirements;
4. reject/re-entry and return procedures;
5. timely research and clearing of suspense items;
6. disaster recovery procedures;
7. personnel management, including cross-training and back-up schedules;
8. records maintenance and destruction procedures;
9. security measures; and
10. equipment care and maintenance.

Management must routinely review and update procedures, as well as staff's compliance with policies and procedures.

On an ongoing basis, management must monitor item processing operations, accounting reconciliations, clearing of adjustments, and compliance with deadlines. The board of directors should review monthly financial and operational reports regarding the item processing operations. Plans for resolving accounting and adjustment backlogs or problems in operations must be developed and implemented on a timely basis.

Management should develop flowcharts and/or narratives discussing the flow of items (deposits or payments) through the system. Tracing the flow of items through the system should document that:

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1. timely and accurate settlement occurs through the FRB or another correspondent bank; and
2. the transactions post accurately to individual members' share accounts.

Contracts with Third Parties

The examiner should review all contracts for item processing services to ensure the following matters are addressed:

1. Settlement line of credit agreements between corporates and credit unions - These are needed to ensure the coverage of check clearing settlements if a member credit union's account balance is insufficient to cover clearings on a given day.

2. Disaster recovery agreements for alternate site and processing equipment - This is essential to ensure continuation of operations in the event of disaster.

3. Maintenance agreements - These are necessary to ensure appropriate software and hardware support and prompt maintenance.

4. Agreements with the FRB and other exchange networks.

5. Agreements with any other hardware and communication vendors for funds settlement and electronic transmission activity.

6. Contract with destruction company or certification of destruction.

Management and Staff Experience

The manager of the item processing department should exhibit a thorough knowledge of each functional area of the operation, as well as possessing management experience. Without a thorough understanding of each function, the manager cannot ensure the overall operation remains as efficient as possible. The manager should also exhibit awareness of new technology and how it might be used to increase the efficiency and/or profitability of the operation.

Cross training is critical in small and medium operations. Even in larger operations, management must have appropriate cross training and back-up plans in place to cover unexpected absences and/or staff turnover.

Staffing levels must be adequate to maintain sufficient internal controls and separation of duties. Computer access controls and security measures must be in place.

Imaging systems can change or eliminate traditional controls, inherent in a paper based system. Internal audit procedures may have to be redesigned. The internal auditor should be involved from the planning stages forward.

Profitability Management

The costs of starting and maintaining an item processing operation are significant. A business plan must be established to identify the services to be provided and the resources needed to operate this area. Departmental cost and revenue projections as well as the impact item processing will have on the corporate's financial performance must be properly documented. The business plan should include:

1. A description of the corporate's operations, internal controls, management, staffing, training, hardware, software, disaster recovery, accounting support, and volume projections.

2. Long- and short-term financial and operational goals.

3. Marketing studies and plans, including analysis of competitors' prices and services, and determination that existing demand and volume are sufficient to support the operation as an ongoing concern.

4. A detailed budget identifying the total expected cost and revenue of the item processing operations under varying volume scenarios. It is recommended that examiners verify projected volume data for reasonableness regarding any corporate considering entering this business on its own or through the purchase of an existing processor.

In support of the business plan, a department profitability analysis should be completed at least annually. Management should ensure all costs of operating the department (e.g. facilities, human resources, internal and external audit, contingency planning, write-offs) are appropriately allocated to the operation. In that way, the true cost and

profitability of the operation are determined and communicated to management and other users of the analysis. When analyzing profitability, it is important to ensure stable item processing revenues are not based on a combination of increasing clients and declining volume. The trend of declining volume can reasonably be expected to continue while the increase in clients can not. If volumes are declining either on an absolute or per member (credit union) basis, a determination should be made that management has established a stop-loss threshold at which service will be phased-out and appropriately curtailed.

Effective management of an item processing operation includes continually reviewing the operation for areas where efficiency can be increased, and/or operating costs reduced, while maintaining reasonable internal controls and segregation of duties throughout the operation.

Document Imaging

Optical imaging systems provide a method of capturing, storing, displaying, printing, and transmitting data. Such systems offer the opportunity to streamline the item processing department workflow, reduce storage and retrieval costs, and improve customer service through automation. The following must be considered when installing document imaging in an item processing operation:

1. Planning - Poor planning can result in excessive installation costs, loss or destruction of original documents, and failure to achieve expected benefits.

    Issues which should be considered in the planning stages include:

    a. conversion of existing paper storage files;
    b. integrating imaging into the organizational workflow; and
    c. backup and recovery procedures.

2. Scanning Devices - Good quality scanning equipment is critical as these devices are the entry point for all transactions. Workflow can be affected if scanning equipment cannot handle the volume or breaks down. Poor controls over the scanning process can result in poor quality images, improper indexing, or incomplete or forged documents being entered into the system.

3. Indexing - Proper indexing of documents is critical to future retrieval and limiting access to files. The integrity of the indexing must be carefully maintained in order to ensure and control access, as well as protect documents from unauthorized modification. The indexing method also can affect the security administrator's ability to restrict access based on the user's needs.

4. Software Security - System security controls over imaged documents are critical to protect the corporate and its members from unauthorized access and/or modifications to documents. Software security and security administrator functions are essential to prevent unauthorized alterations to stored documents.

5. Contingency Planning – A multitude of documents may be stored on a single optical disk; therefore, the loss of storage files or media can severely impact business if electronic back-up or paper files are not maintained. The overall contingency plan should be modified to address the use of imaging in the item processing operation.

6. Training - Failure to properly train personnel responsible for operating scanning equipment can result in poor quality document images and indices as well as the premature destruction of original documents.

7. Legal Issues - Corporates installing imaging systems should carefully evaluate the legal implications of converting original documents to image, and the subsequent destruction of the original documents. Existing contracts should be reviewed to determine procedural changes are consistent with contract language and requirements.

Branch Capture

Branch capture is a sophisticated method of processing checks that a corporate's member credit union takes in from its membership. Item information is captured at the credit union location by a scanning device. An image of the check or item is then transmitted to the corporate for processing. The original checks can be truncated at the member credit union location and transferring of the items among locations is no longer necessary. The corporate can print the images or transfer them electronically depending on the agreements in place. National networks are being developed to exchange large volumes of images among financial institutions. Financial institutions are also collaborating to directly exchange images.

Branch capture technology also allows corporates to serve its members with proof of deposit services. The credit union can scan its deposits and transmit the information electronically. Once the transfer is balanced and agreed upon the credit union receives settlement of the funds.

The corporate's item processing remains basically the same regarding branch capture. The primary benefit is that items processed through branch capture are transferred electronically, reducing the paper being processed through the reader/sorter. The software and hardware (scanners and data storage) is expensive, which emphasizes the importance of the corporate having a realistic business plan to address costs, pricing and volumes.

It is important that the process and controls involved with the electronic transfer and storage of images is reviewed during the information systems review. Protection of member data is essential for corporate credit unions and the credit union network.

Problem Areas

Common problems found in item processing operations include the following:

1. high staff turnover;
2. inadequately trained personnel;
3. inadequate staffing levels for proper internal control, accounting, and adjustment clearing;
4. changes in settlement patterns or procedures;
5. inadequate communication, hardware, and/or software may result in incorrect postings and reconciliations;
6. rapidly growing volume, added to existing inadequate staffing and inappropriate accounting systems;
7. weak internal controls and accounting procedures; and
8. backlog of reconciling items.

Corporates exhibiting difficulties in new or established item processing operations may benefit from a third party review. A full third party review involves an evaluation of the accounting system controls and day-to-day operations of the department. Large public accounting firms usually have the expertise to review both functions of the department. Weaknesses in operations, management, and accounting identified during a review should result in the development of plans for prompt corrective action.

Regulatory Considerations

The following are two laws significantly impacting item processing and the security of personal information.

Check Clearing for the 21st Century Act

This law is commonly referred to as Check 21. Check 21 went into effect on October 28, 2004. The purpose of this law is to:

- Facilitate check truncation by creation of a new negotiable instrument known as a "substitute check;"
- Foster innovation in the check collection system without mandating receipt of checks in electronic form; and
- Improve the overall efficiency of the nation's payment systems.

The act does not mandate image exchange, provide any legal coverage for image exchange, or determine what constitutes legal presentment.

Gramm-Leach-Bliley Act (GLBA)

This act is also know as the Financial Services Modernization Act of 1999. The GLBA's privacy protections only regulate financial institutions. Financial institutions, whether they wish to disclose personal information or not, must:

- Develop precautions to ensure the security and confidentiality of customer records and information;
- Protect against any anticipated threats or hazards to the security or integrity of such records; and
- Protect against unauthorized access to or use of such records or information which could result in substantial harm or inconvenience to any customer.

Examination Objectives

The objectives for reviewing item processing service centers are to:

1. Determine if the corporate's policies, procedures, and internal controls are adequate to monitor and control the risk in its item processing operations.

2. Assess management's guidelines for evaluating and monitoring item processing operations.

3. Determine that corporate management and officials are adhering to established guidelines.

4. Initiate corrective action when the corporate's item processing policies, procedures, practices, and controls are deficient.

Examination Procedures

See Corporate Examination Procedures - Item Processing Service Center (OCCU 304P).

Examination Questionnaire

See Corporate Examination Questionnaire - Item Processing Service Center (OCCU 304Q).

References

1. FFIEC Information Systems Examination Handbook, 1996 Edition
2. NCUA Examiners' Guide, Chapter 24, Item Processing
3. FFIEC Information Technology Examination Handbook: Operations, June 2004

Appendices

304A Common Item Processing Terms
304B   Item Processing Schematics